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FISH & RICHARDSON P.C. PO BOX 1022 MINNEAPOLIS, MN 55440-1022				LAI, MICHAEL C
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/650,457	CLAUDATOS ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	MICHAEL C. LAI	2457	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 27 August 2003.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-40 is/are pending in the application.  
 4a) Of the above claim(s) 9-12, 19, 20, 29-32, 39 and 40 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-8, 13-18, 21-28 and 33-38 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 27 August 2003 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/15/2004</u> .   | 6) <input type="checkbox"/> Other: _____ .                        |

**DETAILED ACTION**

1. This office action is responsive to application filed on 8/27/2003. Claims 1-8, 13-18, 21-28, and 33-38 are pending examination, claims 9-12, 19-20, 29-32, and 39-40 are withdrawn from examination.

***Election/Restrictions***

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
- I. Claims 1-8, 13-18, 21-28, and 33-38, which are directed to computer network access regulating (access authorization), classified in class 709, subclass 225.
  - II. Claims 9-12 and 29-32, which are directed to prioritized data routing (Quality of Service), classified in class 709, subclass 240.
  - III. Claims 19-20 and 39-40, which are directed to computer-to-computer data transfer regulating (packet surveillance), classified in class 709, subclass 232.

The inventions are distinct, each from the others because of the following reasons:

Inventions I, II, and III are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombinations as claimed because Quality of

Service or packet surveillance is not needed for access authorization. Invention II has separate utility such as assigning a quality of service (QoS) metric to matching data packets. Invention III has separate utility such as specifying that surveillance is to perform on the data packet.

The examiner has required restriction between combination and subcombination inventions. Where applicant elects a subcombination, and claims thereto are subsequently found allowable, any claim(s) depending from or otherwise requiring all the limitations of the allowable subcombination will be examined for patentability in accordance with 37 CFR 1.104. See MPEP § 821.04(a). Applicant is advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application.

Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions have acquired a separate status in the art due to their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

During a telephone conversation with Applicant's representative, Mr. David J. Goren, on 03/04/2009 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-8, 13-18, 21-28, and 33-38, which is directed to computer network access regulating (access authorization), classified in class 709, subclass 225. Affirmation of this election must be made by applicant in replying to this Office action. Group II (claims 9-12 and 29-32, which is directed to prioritized data routing (Quality of Service), classified in class 709, subclass 240) and Group III (claims 19-20 and 39-40, which is directed to computer-to-computer data transfer regulating (packet surveillance), classified in class 709, subclass 232) are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

***Priority***

3. Acknowledgment is made of applicant's claim for benefit of 60/406,713 filed on 08/28/2002.

***Specification***

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Applicant fails to provide antecedent basis for the claim

terminologies “computer readable medium” and “data processing equipment” in claims 21, 25, 33, and 37.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 21-28, and 33-38 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. “A computer program product tangibly embodied in a computer readable medium” is claimed. The specification fails to provide support for the data number identifier besides the cited “a computer program tangibly embodied in an information carrier, e.g., in a machine-readable storage device or in a propagated signal” (page 17, lines 13-14).

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 5-8, 21-28, and 33-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 5 and 25 recite the limitation “if there is a matching packet policy specifying a second packet policy, processing the data packet based on the policy

action fields of the second packet policy.” It is unclear what will happen if there is no matching packet policy specifying a second packet policy.

Claims 6-8 and 26-28 are necessarily rejected as being dependent upon the rejection of claims 5 and 25.

Claims 21, 25, 33, and 37 recite the limitation “A computer program product tangibly embodied in a **computer readable medium**, the computer program product comprising instructions operable to cause **data processing equipment...**” It is unclear whether the **computer readable medium** is associated with the **data processing equipment** or not.

Claims 22-24, 26-28, 34-36, and 38 are necessarily rejected as being dependent upon the rejection of claims 21, 25, 33, and 37.

#### ***Claim Rejections - 35 USC § 101***

9. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

10. Claims 21-28, and 33-38 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 21, 25, 33, and 37 recite the limitation “A computer program product tangibly embodied in a **computer readable medium...**” that is described in page 17, lines 12-16 of original specification as “The invention can be implemented as a computer program product, i.e., **a computer program tangibly embodied in an information carrier**, e.g., in a machine-readable storage device or in a **propagated**

**signal**, for execution by, or to control the operation of, data processing apparatus, e.g., a programmable processor, a computer, or multiple computers.” As such, the claims cover embodiments directed to signals, per se. These claims are being rejected as non-statutory as directed to a form of energy rather than a patent-eligible machine, manufacture, process or composition of matter.

Claims 22-24, 26-28, 34-36, and 38 are necessarily rejected as being dependent upon the rejection of claims 21, 25, 33, and 37.

***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –  
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1-8, 17-18, 21-28, and 37-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Kadambi et al. (US 6,154,446, hereinafter Kadambi).

Regarding claim 1, Kadambi discloses a method for processing data packets in a computer network, comprising:

configuring a multilayer switch to process data packets at wire-speed based on one or more user defined packet policies, each user defined packet policy specifying information for one or more of Layers 4 through 7 [FIG. 2, col. 4 line 29 through col. 5 line 23, “CPU 52 can be used as necessary to program SOC 10 with rules which are appropriate to control packet processing. However, once SOC 10 is appropriately programmed or configured, SOC 10 operates, as much as possible, in a free running

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manner without communicating with CPU 52", configuring SOC 10 and rules tables 22a, 22b, 22c, 31a, 31b];

receiving a data packet at the multilayer switch, the data packet including information from one or more of Layers 2 through 7 of the OSI model [col. 16, lines 17-21, "packet 112 is received at input port 24 of EPIC 20... initiates lookup in ARL/L3 tables 21"];

determining if there is a match between the data packet and one or more of the packet policies, each packet policy authorizing matching data packets to use the computer network [col. 20 line 15 through col. 21 line 57, "The filters utilized by FFP 141 are defined by rules table 22. Rules table 22 is completely programmable by CPU 52, through CMIC 40... If the filter is designated as an exclusive filter, the filter will exclude all packets unless there is a match. In other words, the exclusive filter allows a packet to go through the forwarding process only if there is a filter match."];

if there is a matching packet policy authorizing the data packet, routing the data packet using a Layer 2-3 switch [col. 20, lines 35-39, "the exclusive filter allows a packet to go through the forwarding process only if there is a filter match"]; and

if there is no matching packet policy authorizing the data packet, blocking the data packet [col. 20, lines 35-40, "the filter will exclude all packets unless there is a match"].

Regarding claim 2, Kadambi further discloses wherein the user defined packet policies include timed packet policies, the timed packet policies being active during

specified date or time intervals, and determining if there is at least one matching packet policy comprises: determining if there is a currently active timed matching policy [col. 18, lines 55-56, time-to-live; col. 23, lines 1-7, age timer].

Regarding claim 3, Kadambi further discloses wherein the user defined packet policies authorize data packets being transmitted or received by authorized users, applications, physical ports, application ports, IP addresses, or MAC addresses [col. 2, lines 25-35, “Bridges can build a table of forwarding rules based upon which MAC (media access controller) addresses exist on which ports of the bridge, and pass packets which are destined for an address which is located on an opposite side of the bridge”].

Regarding claim 4, Kadambi further discloses wherein blocking the data packet comprises: discarding the data packet [col. 19, lines 49-63, “If there is no match, the packet is discarded”], logging the data packet, or forwarding the data packet to a multilayer switch application for processing.

Regarding claim 5, Kadambi discloses a method for processing data packets in a computer network, comprising:

configuring a multilayer switch to process data packets at wire-speed based on one or more user defined packet policies, each user defined packet policy specifying information for one or more of Layers 4 through 7 [FIG. 2, col. 4 line 29 through col. 5 line 23, “CPU 52 can be used as necessary to program SOC 10 with rules which are appropriate to control packet processing. However, once SOC 10 is appropriately programmed or configured, SOC 10 operates, as much as possible, in a free running

manner without communicating with CPU 52", configuring SOC 10 and rules tables 22a, 22b, 22c, 31a, 31b];

receiving a data packet at the multilayer switch, the data packet including information from one or more of Layers 2 through 7 of the OSI model [col. 16, lines 17-21, "packet 112 is received at input port 24 of EPIC 20... initiates lookup in ARL/L3 tables 21"];

determining if there is a match between the data packet and one or more packet policies that specify a second packet policy to be applied to the matching data packets, the second packet policy having one or more policy action fields [FIG. 14, ARL/L3 Tables and Rules Tables; col. 16 line 9 through col. 21 line 57. Note that the ARL engine matches the first packet policy using ARL/L3 Tables and the Fast Filtering Processor matches the second packet policy using Rules Tables]; and

if there is a matching packet policy specifying a second packet policy, processing the data packet based on the policy action fields of the second packet policy [col. 20 line 35 through col. 21 line 36, "the exclusive filter allows a packet to go through the forwarding process only if there is a filter match"].

Regarding claim 6, Kadambi further discloses wherein the matching packet policy specifies the application of a preexisting second packet policy, and processing the data packet comprises: identifying the preexisting second packet policy specified by the matching packet policy [col. 20, lines 15-61, Rules Table 22]; and processing the data

packet based on the policy action fields of the preexisting second packet policy [col. 20 line 62 through col. 21 line18].

Regarding claim 7, Kadambi further discloses wherein the matching packet policy specifies the application of a dynamically created second packet policy, and processing the data packet comprises: creating the second packet policy specified by the matching packet policy [col. 16, lines 9-15]; and processing the data packet based on the policy action fields of the created second packet policy [col. 20 line 35 through col. 21 line 36].

Regarding claim 8, Kadambi further discloses wherein processing the data packet comprises: routing the data packet using a Layer 2-3 switch [col. 33 line 54 through col. 34 line 14].

Regarding claim 17, Kadambi discloses a method for processing data packets in a computer network, comprising:

configuring a multilayer switch to process data packets at wire-speed based on one or more user defined packet policies, each user defined packet policy specifying information for one or more of Layers 4 through 7 [FIG. 2, col. 4 line 29 through col. 5 line 23, “CPU 52 can be used as necessary to program SOC 10 with rules which are appropriate to control packet processing. However, once SOC 10 is appropriately programmed or configured, SOC 10 operates, as much as possible, in a free running manner without communicating with CPU 52”, configuring SOC 10 and rules tables 22a, 22b, 22c, 31a, 31b];

receiving a data packet at a particular port of the multilayer switch, the data packet including information from one or more of Layers 2 through 7 of the OSI model [FIG. 1, col. 4, lines 15-25, fast Ethernet port; col. 16, lines 17-21, "packet 112 is received at input port 24 of EPIC 20... initiates lookup in ARL/L3 tables 21"];

determining if there is a match between the data packet and one or more of the packet policies, each packet policy blocking matching data packets received at the particular port from utilizing the computer network [col. 20 line 15 through col. 21 line 57, "The filters utilized by FFP 141 are defined by rules table 22. Rules table 22 is completely programmable by CPU 52, through CMIC 40... If the filter is designated as an exclusive filter, the filter will exclude all packets unless there is a match. In other words, the exclusive filter allows a packet to go through the forwarding process only if there is a filter match."];

if there is a matching packet policy blocking the data packet, blocking the data packet [col. 28, lines 46-48, "If the port bit for that particular port is set to zero, then the ingress is configured to drop all packets going to that port"]; and

if there is no matching packet policy blocking the data packet, processing the data packet [col. 20, lines 35-40, "the filter will exclude all packets unless there is a match"].

Regarding claim 18, Kadambi further discloses wherein the user defined packet policies block data packets received at the particular port, for data packets having a

subnet address [col. 27, lines 10-11], a range of subnet addresses, a host address, or a range of host addresses.

Claims 21-28 are of the same scope as claims 1-8. They are rejected for the same reasons as for claims 1-8 respectively.

Claims 37-38 are of the same scope as claims 17-18. They are rejected for the same reasons as for claims 17-18 respectively.

***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 13-16 and 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kadambi as applied to claim 1 above, and further in view of Markham (US 2003/0126468 A1, hereinafter Markham).

Regarding claim 13, Kadambi discloses a method for processing data packets in a computer network, comprising:

configuring a multilayer switch to process data packets at wire-speed based on one or more user defined packet policies, each user defined packet policy specifying information for one or more of Layers 4 through 7 [FIG. 2, col. 4 line 29 through col. 5 line 23, “CPU 52 can be used as necessary to program SOC 10 with rules which are appropriate to control packet processing. However, once SOC 10 is appropriately programmed or configured, SOC 10 operates, as much as possible, in a free running

manner without communicating with CPU 52", configuring SOC 10 and rules tables 22a, 22b, 22c, 31a, 31b];

receiving a data packet at the multilayer switch, the data packet including information from one or more of Layers 2 through 7 of the OSI model [col. 16, lines 17-21, "packet 112 is received at input port 24 of EPIC 20... initiates lookup in ARL/L3 tables 21"];

determining if there is a match between the data packet and one or more of the packet policies, each packet policy authorizing matching data packets to use the computer network [col. 20 line 15 through col. 21 line 57, "The filters utilized by FFP 141 are defined by rules table 22. Rules table 22 is completely programmable by CPU 52, through CMIC 40... If the filter is designated as an exclusive filter, the filter will exclude all packets unless there is a match. In other words, the exclusive filter allows a packet to go through the forwarding process only if there is a filter match."];

if there is a matching packet policy authorizing the data packet, routing the data packet using a Layer 2-3 switch [col. 20, lines 35-39, "the exclusive filter allows a packet to go through the forwarding process only if there is a filter match]; and

if there is no matching packet policy authorizing the data packet, blocking the data packet [col. 20, lines 35-40, "the filter will exclude all packets unless there is a match"].

Kadambi discloses the claimed invention except for the data packet being part of a network flow representing access to a specific website. Markham discloses a system

and method for blocking access to a web server [para. 0076] and for performing flow control as a function of policy driven bandwidth management [para. 0089]. When an operation is in progress, mission critical traffic is prioritized ahead of background traffic, such as Web browsing. It would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate Markham's teaching into Kadambi's method for the purpose of identifying and prioritizing traffic by filtering network flow as a function of policy including accessing to a specific website, thereby providing expedited traffic capabilities to support transmission of time-critical information in a LAN environment [para. 0089].

Regarding claim 14, Kadambi further discloses wherein the user defined packet policies include timed packet policies, the timed packet policies being active during specified date or time intervals, and determining if there is at least one matching packet policy comprises: determining if there is a currently active timed matching policy authorizing access to the specific website [col. 18, lines 55-56, time-to-live; col. 23, lines 1-7, age timer].

Regarding claim 15, Kadambi further discloses wherein the user defined packet policies authorize access to specific websites by authorized users, applications, physical ports, application ports, IP addresses, or MAC addresses [col. 2, lines 25-35].

Regarding claim 16, Kadambi further discloses wherein blocking the data packet comprises: discarding the data packet [col. 20, lines 35-40], logging the data packet, or forwarding the data packet to a multilayer switch application for processing.

Claims 33-36 are of the same scope as claims 13-16. They are rejected for the same reasons as for claims 13-16 respectively.

***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is reminded that in amending in response to a rejection of claims, the patentable novelty must be clearly shown in view of the state of the art disclosed by the references cited and the objection made. Applicant must show how the amendments avoid such references and objections. See 37 CFR 1.111(c).
16. McCloghrie et al., US Patent Number 6,286,052 B1, has taught a method and apparatus for identifying network data traffic flows and for applying quality of service treatments to the flows.
17. Tzeng, US Patent Number 7,424,012 B2, has taught a linked network switch configuration.

**Examiner's Note:** Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Lai whose telephone number is (571) 270-3236. The examiner can normally be reached on M-F 8:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Michael C. Lai  
12MAR2009

/YVES DALENCOURT/  
Primary Examiner, Art Unit 2457